ABB BALDOR RELIANCE

Customer information packet

IDM3770T

7.5HP, 1770RPM, 3PH, 60HZ, 213TC, 0738M, TEBC
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEBC
Frame	213TC
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	7.500 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ
	460.0 V @ 60 HZ
Agency Approvals	CSA
	UR
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	BLOWER
Current @ Voltage	9.500 A @ 460.0 V
	19.000 A @ 230.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.7 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	9.5 a
Insulation Class	H

Part Detail

Revision	B
Type	AC
Mech. spec.	07D515
Base	
Status	PRD/A
Elec. spec.	07WGT510
Layout	07LYD515
Eff. date	09-30-2025
CD Diagram	CD0005
Poles	04
Leads	9#14
Proprietary	False
Created date	01-28-2021

Inverter Code	Inverter Duty
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	4000 rpm
Motor Lead Quantity/Wire Size	9 @ 14 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0738M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	25.58 IN
Power Factor	81
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.00
Shaft Diameter	1.375 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1770 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	Normally Closed Thermostat
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP4009L									
CAT.NO.	IDM3770T								
SPEC.	07D515T510G1								
FRAME	213TC		**H.P.**	7.5 TE					
VOLTS	230/460								
MAG. CUR.	8.6/4.3			**F.L. AMPS**	19/9.5				
R.P.M.	1770			**R.P.M. MAX**	4000				
HZ.	60	**PH.**	3	**CLASS**	H				
SER.F.	1.00	**DES.**	A	**SL HZ**	1				
NEMA NOM. EFF.	91.7	**WK2**	0.934						
BLOWER		**V**		**PH**		**HZ**		**AMPS**	
RATING	40C AMB-CONT								
DE	6307	**ODE**	6206						
CC	010A	**SN**							
	1000:1 CT/VT								

				WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)			
NP VOLTS	230/460						
NP AMPS	19/9.5	Base Volt	460	R1	0.784	X1	2.650
HP	7.5	NL AMPS	4.07	R2	0.464	X2	2.040
BASE SPEED	1769	Slip (HZ)	1.03			XM	62.900
PHASE/HZ	3/60	WK^2 (lb-ft^2)	0.934				

Rated Full Load Data

	RPM	HP	Torque	Volts	Freq-Hz	Amps
Base Speed	1769	7.5	22.3	460	60	9.4
Max Speed	2653	7.5	14.9	460	90	8.9
CT Min Speed	1.769	0.008	22.3	0.46	0.06	9.4

Load Performance at Base Speed

	RPM	HP	Torque	Volts	Freq-Hz	Amps
No Load	1799	0.0	0.0	460	60	4.1
1/4	1792	1.9	5.5	460	60	4.6
1/2	1785	3.7	11.0	460	60	5.8
3/4	1777	5.6	16.6	460	60	7.5
Full Load	1769	7.5	22.3	460	60	9.4
O/L	1734	15.0	45.4	460	60	18.7

Blower Data	Volts	Ph/Hz	FL Amps	LR Amps	Frame	CFM

Remarks: Calculated Data

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CK BY CD
APP BY USBRRAN1
DATE 3/21/2025

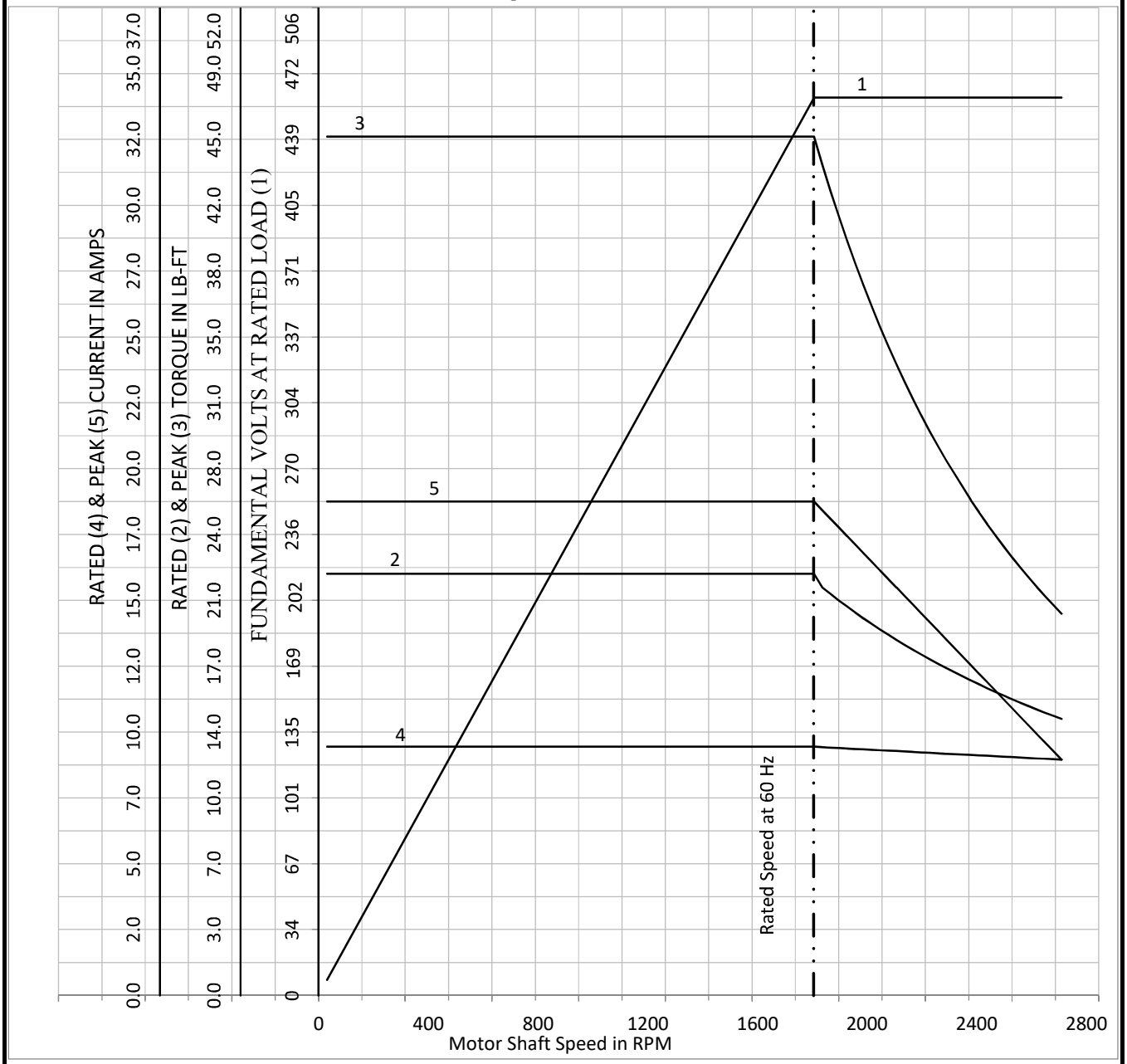
A-C MOTOR PERFORMANCE CURVES

07WGT510

Record: 86626

				WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)			
NP VOLTS	230/460			R1	0.784	X1	2.650
NP AMPS	19/9.5	Base Volt	460	R2	0.464	X2	2.040
HP	7.5	NL AMPS	4.07			XM	62.900
BASE SPEED	1769	Slip (HZ)	1.03				
PHASE/HZ	3/60	WK^2 (lb-ft^2)	0.934				

Variable Speed AC Motor Curves



Calculated Data

Data Valid For Nameplate Speed Range only

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A-C MOTOR PERFORMANCE CURVES

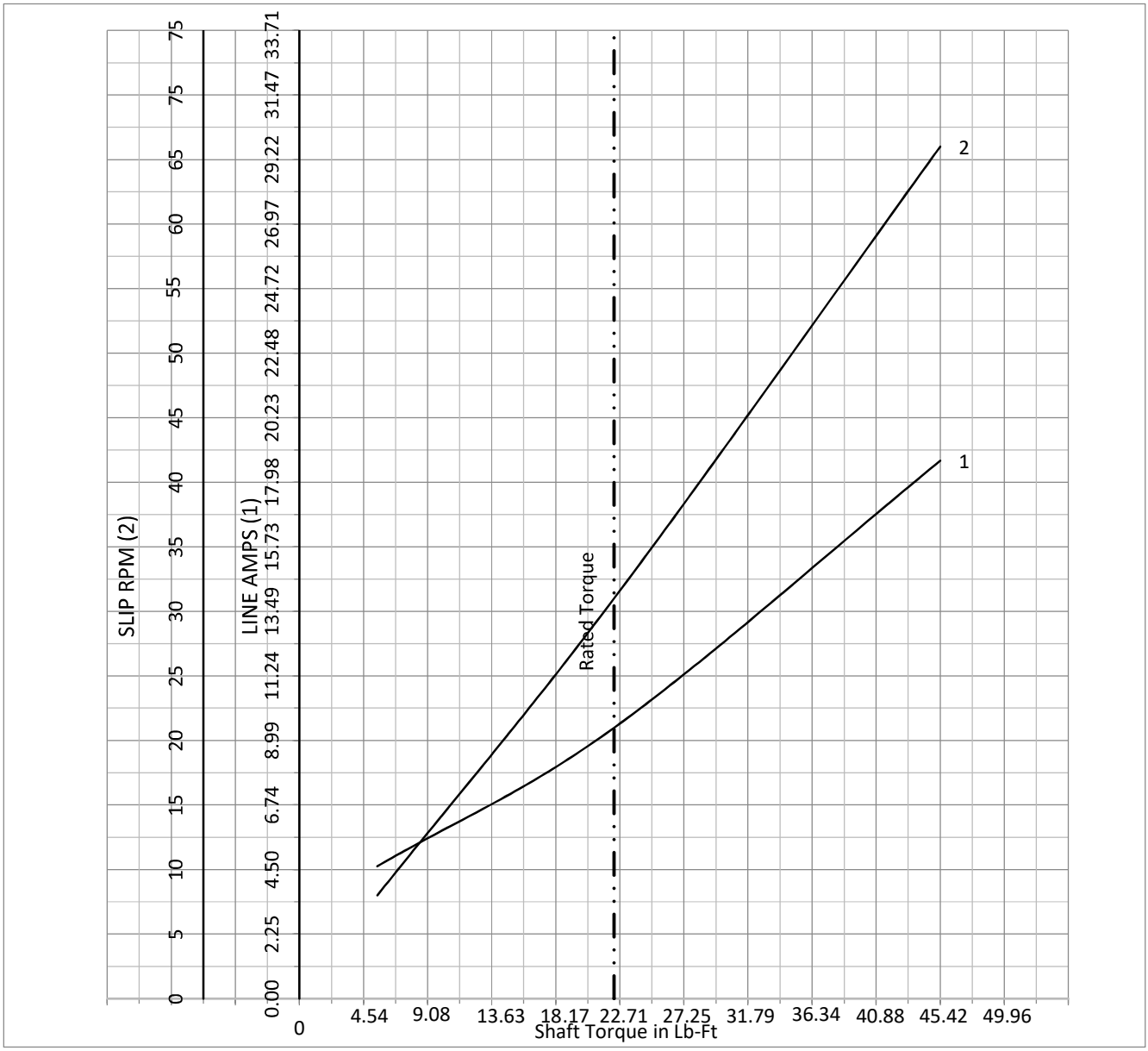
07WGT510

Record: 86626

NP VOLTS	230/460	0	0	WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)			
NP AMPS	19/9.5	Base Volt	460	R1	0.784	X1	2.650
HP	7.5	NL AMPS	4.07	R2	0.464	X2	2.040
BASE SPEED	1769	Slip (HZ)	1.03			XM	62.900
PHASE/HZ	3/60	WK2 (lb-ft2)	0.934				

Vector PWM Inverer Duty

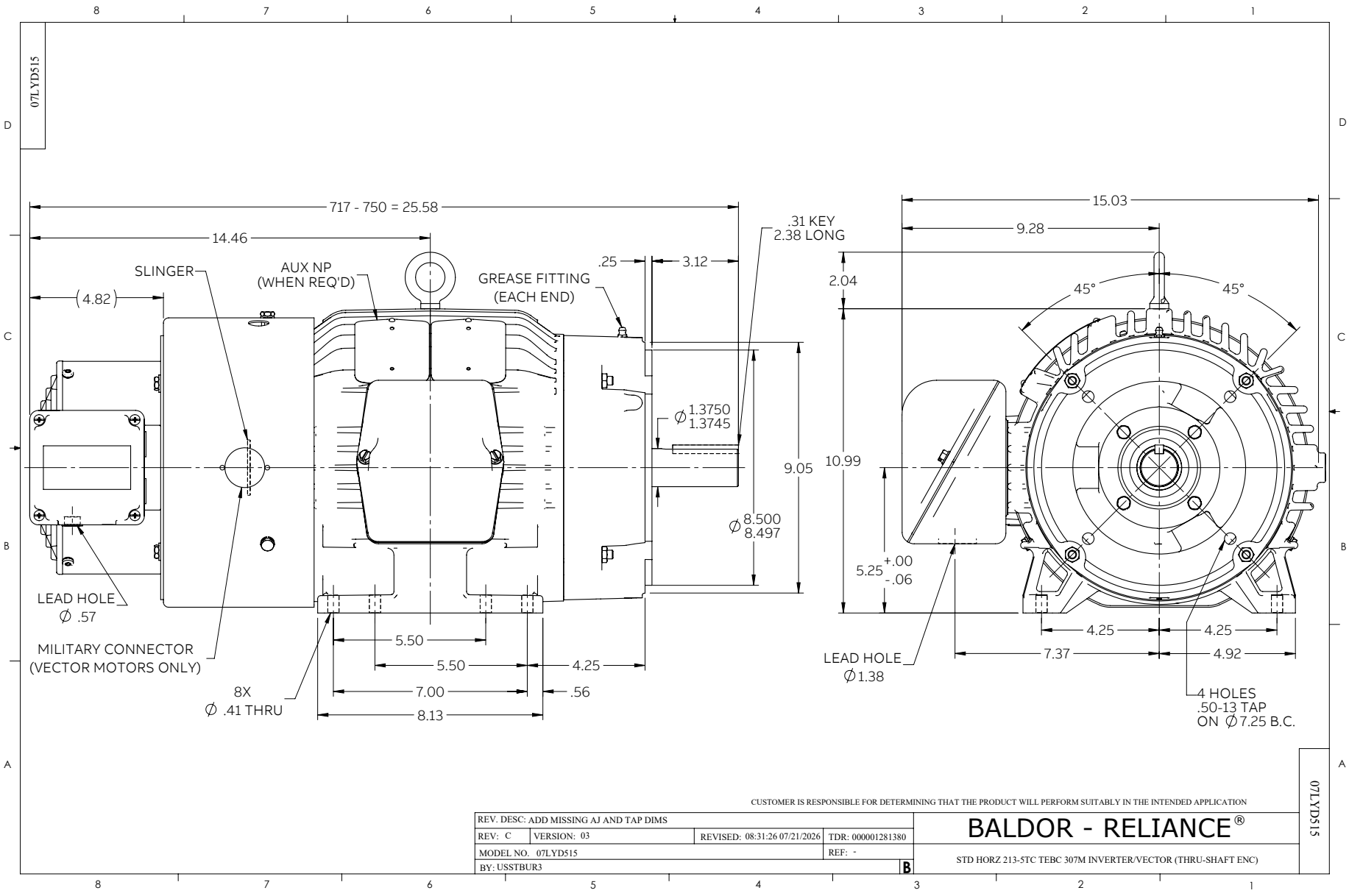
Vaiable Speed AC Motor Curves



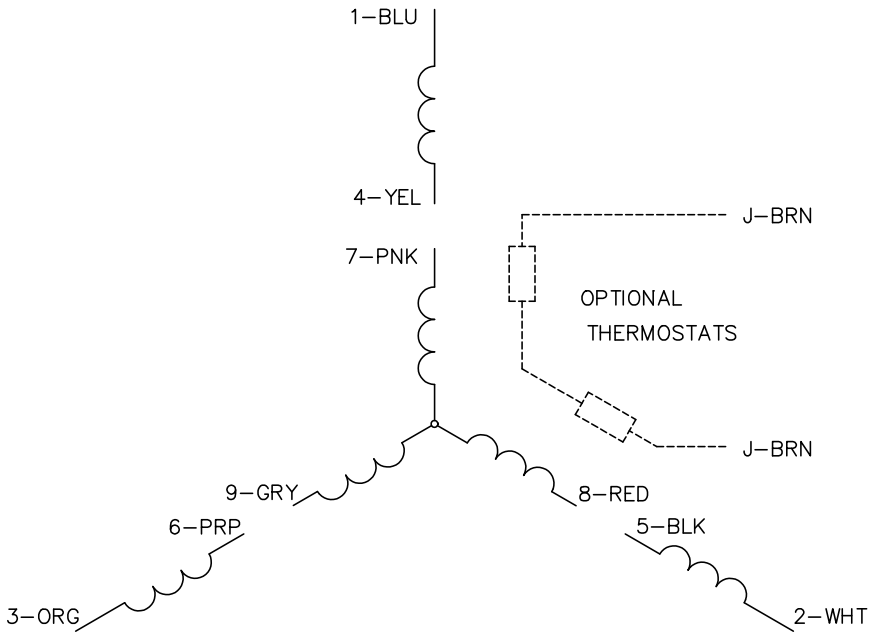
Calculated Data

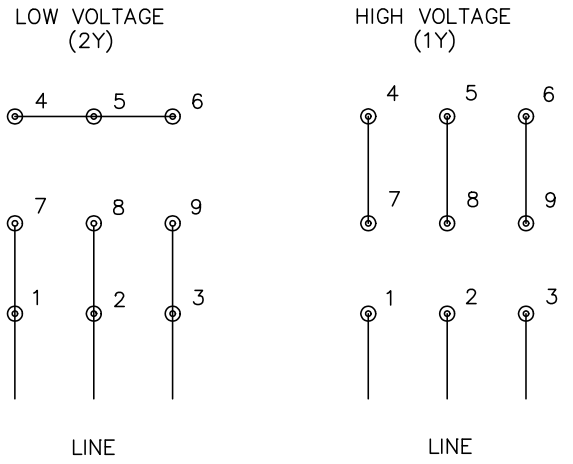
Data Valid For Nameplate Speed Range only

BALDOR · RELIANCE	DR BY USBRRAN1 CK BY CD APP BY USBRRAN1 DATE 3/21/2025	**A-C MOTOR PERFORMANCE CURVES**	**07WGT510** Record: 86626


07LYD515
717 - 750 = 25.58
14.46
4.82
SLINGER
AUX NP
(WHEN REQ'D)
GREASE FITTING
(EACH END)
.25
3.12
.31 KEY
2.38 LONG
Ø 1.3750
1.3745
9.05
Ø 8.500
8.497
LEAD HOLE
Ø .57
MILITARY CONNECTOR
(VECTOR MOTORS ONLY)
8X
Ø .41 THRU
5.50
5.50
4.25
7.00
.56
8.13
15.03
9.28
2.04
45°
45°
10.99
5.25 +.00 -.06
4.25
4.25
7.37
4.92
LEAD HOLE
Ø1.38
4 HOLES
.50-13 TAP
ON Ø7.25 B.C.
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: ADD MISSING AJ AND TAP DIMS
REV: C
VERSION: 03
REVISED: 08:31:26 07/21/2026
TDR: 000001281380
MODEL NO. 07LYD515
REF: -
BY: USSTBUR3
B
BALDOR - RELIANCE®
STD HORZ 213-5TC TEBC 307M INVERTER/VECTOR (THRU-SHAFT ENC)
07LYD515

CD0005





NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

CD0005

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			BALDOR ELECTRIC Co.
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
CD0005		FILE: AAA00005140	MDL: –
		MTL: –	3PH, DV, 9 LEADS